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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,405	06/06/2000	Mendy J. Mossbrook	D-43310-01	9572

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CRYOVAC, INC.
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EXAMINER

WEINSTEIN, STEVEN L

ART UNIT	PAPER NUMBER
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1761

10

DATE MAILED: 06/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588405

Applicant(s)

Examiner

S. WEINSTEIN

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 2/13/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-26 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-26 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 829
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai (Jap. 9-302264) in view of McIntyre I ("UV-Cured Durable Top Coats") further in view of Ravijst ("Radiation Cure Applications In the Packaging industry"), McIntyre II ("Practical Implications of EB Hybrids"), Brock ('609), Vorrier et al (H304) and applicants' admission of the prior art. .

In regard to claim 1, Nakai discloses a packaged food product comprising a food product, a package enclosing the food product, the packaging comprising a coated, printed film comprising a substrate film comprising one or more thermoplastic materials wherein the film has an average thickness less than that recited and a radiation cured varnish over the printed image. Support for these teachings of Nakai can be found throughout Nakai. For example, Nakai discloses forming a surface-protective layer on food packaging materials wherein the surface protective layer is formed on printing which has been printed on the surface of packaging stock and wherein the protective layer protects the printed indicia (page 3, col.1) as well as enhance gloss, scratch resistance and wear resistance of the food packaging material. Nakai also discloses exposing the electron-beam curable protective waiting to an electron beam to cure the coating and also exposing the coating to UV radiation to treat any residual monomer (page 4, col. 2). Nakai

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also discloses that the packaging stock can be a monolayer film or a composite (presumably laminated) sheet of conventional plastic, food packaging films (page 6, col. 1) and that the film can be 50 microns (e.g. Example 1). Thus, as noted above, Nakai appears to disclose a packaged food product comprising a thin film within the recited thickness that has been printed and coated with a radiation cured varnish. Claim 1 recites that the polymerization is at least 90% and also recites a migration level of any of the reactants. It is not clear whether Nakai discloses a specific degree of polymerization or not or whether one can glean from his disclosure a degree of polymerization. Similarly for the migration level. Therefore, it is not clear whether Nakai would anticipate claim 1 based on inherency. In any case, Nakai recognizes that to avoid toxicity problems and achieve a level of migration that satisfies the Japanese Food Sanitation Act (which apparently employs a different test than that recited), one should react the reactants as fully as possible and even uses UV to further react unreacted reactants. Therefore, it would have been obvious to modify Nakai and react to the recited degree of polymerization for its art recognized and applicants' intended function, if indeed, Naki does not already reach the recited level. As noted above, the migration level is a direct function of the degree of polymerization. In summary, applicants problem and solution appears to be conventional. McIntyre I can be relied on as further evidence of thin film packaging (Table 1) wherein a "top coat" is applied over a printed surface containing UV cured inks., page 1 and tables 2 and 3) wherein the top coat is radiation cured. Ravijst can be relied on as further evidence that radiation cured inks and coatings provide low extractables (page 107), that if applied on film, and properly cured, there are very low

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extractables (page 108), that the radiation cured coatings are heat sealable (page 108) and that they (inks and coatings) can be used in food applications. McIntyre II can be relied on as further evidence that it was known that radiation curing using UV and EB minimizes and in some cases completely eliminates chemical migration in food packaging and also recognizes that a full cure (ie. 100% polymerization) prevents extractable migration. Finally, Brack can be relied on as further evidence of radiation curing of inks and coatings, Vorrier can be relied on as further evidence of radiation curing of ink on thin film food packaging (eg. casings), and applicants' admission of the prior art is relied on as further evidence of the conventionality of providing radiation cured over coatings on printed film packages, except for food contents.

In regard to claim 18, which discloses that the radiation cured varnish extends into a heat sealed region, applicants admission of the prior art discloses that it was conventional that the coatings extended into the conventional heat seal regions (with varying results). However, Nakai and the art taken as a whole teach the radiation cured coatings have excellent physical qualities so that to modify Nakai and provide a conventional sealed packaging arrangement would have been obvious and the properties of the package would not have been unexpected but expected in view of the art taken as a whole. In regard to claim 22, the particular degree of energy if not already taught by the art taken as a whole would have been an obvious determination based on routine experimentation since the objective of applicants is the same as the art taken as a whole; ie. to achieve a high degree of polymerization.

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Applicants' remarks filed 2/13/02 paper no. 7 have been carefully reviewed but are considered to be moot in view of the new ground of rejection.

In view of the plethora of art, cited on the Information Disclosure Statements, applicants are invited to point out which references are more relevant. Applicants have essentially stated they are the first to provide a thin film food package with a radiation cured protective coating over a printed surface of the film. Is this applicants' position? If this is not applicants' position and applicants are the first to polymerize to 90%, in conventional thin film food packages that were polymerized to less than 90% why wouldn't it be obvious to polymerize to 90% in view of the art taken as a whole?

Any inquiry concerning this communication examiner should be directed to Steven Weinstein whose telephone number is 703-308-0650. The examiner can generally be reached on Monday-Friday from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 703-308-3959. The fax phone numbers for the organization where this application is assigned are 703-872-9310 for regular communications and 703-872-9311 for after Final communications.

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Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-305-0661.

SWeinstein:evh

5/30/02



STEVE WEINSTEIN
PRIMARY EXAMINER 1761

6/11/02